

THRILLING WONDER STORIES

5¢

THRILLING
PUBLICATION

LINE

THE
MOLTEN
BULLET

Story of
Astronomical Doom
By ANTHONY RUD

THREAT FROM
THE MICROCOSM

Novelette
Within Worlds

JOHN
RUSSELL
BARN

RANGER
AN TRUTH

THE CHESSBOARD OF MARS

A Novelette of Super-Telepathy
By EANDO BINDER

LOST IN TIME

A Novelette of
Dimensional Secrets
By ARTHUR
LEO ZAGAT



THRILLING WONDER STORIES



The Magazine of Prophetic Fiction

VOL. 9

No. 3

JUNE, 1937

IN THE NEXT ISSUE

THE DOUBLE MINDS

A Scientific
Adventure Novelette

By
JOHN W.
CAMPBELL, JR.

CONQUEST OF LIFE

A Novelette of
Laboratory Magic

By
EANDO BINDER

RIFT IN INFINITY

A Novelette of
Absolute Space

BY
PAUL ERNST

THE IRON WORLD

A Novelette of
Robot Rebellion

BY
OTIS ADELBERT
KLINE

—and many other Un-
usual Novelettes and
Stories.

Table of Contents

● COMPLETE NOVELETTES

MENACE FROM THE MICROCOSM By JOHN RUSSELL FEARN.....	14
LOST IN TIME By ARTHUR LEO ZAGAT.....	40
THE CHESSBOARD OF MARS By EANDO BINDER.....	72

● THRILLING SHORT STORIES

THE MOLTEN BULLET By ANTHONY RUD.....	31
DARK SUN By RAYMOND Z. GALLUN.....	56
DARCONDRA By RICHARD TOOKER.....	63
RENEGADE By J. HARVEY HAGGARD.....	88
GREEN HELL By ARTHUR K. BARNES.....	91
THE BLACK VORTEX By FRANK BELKNAP LONG, JR.....	104

● SPECIAL PICTURE FEATURES

IF—! By JACK BINDER.....	87
ZARNAK By MAX PLAISTED.....	101

● NEW SCIENCE FEATURE

SCIENTIFACTS By J. B. WALTER.....	70
--------------------------------------	----

● OTHER FEATURES AND DEPARTMENTS

THE STORY BEHIND THE STORY.....	10
TEST YOUR SCIENCE KNOWLEDGE.....	86
SCIENCE QUESTIONS AND ANSWERS.....	115
THE READER SPEAKS.....	117
THE SCIENCE FICTION LEAGUE.....	122
THE "SWAP" COLUMN.....	125
SCIENTIFILM REVIEW	127
FORECAST FOR THE NEXT ISSUE.....	129

● ON THE COVER

Jim Dunning, of the year 1938, follows a stratocar of the future to its landing field. This scene depicts the climax of Arthur Leo Zagat's novelette, LOST IN TIME.

Published bi-monthly by BEACON MAGAZINES, INC., 22 West 48th Street, New York, N. Y. N. L. Pines, President. Copyright, 1937, by Beacon Magazines, Inc. Yearly \$.90; single copies, \$.15; Foreign and Canadian, postage extra. Entered as second-class matter May 21, 1936, at the Post Office at New York, N. Y., under the Act of March 3, 1879. Names of all characters used in stories and semi-fiction articles are fictitious. If a name of any living person or existing institution is used, it is a coincidence.

Manuscripts must be accompanied by self-addressed, stamped envelopes, and are submitted at the author's risk.

The Story Behind the Story

IT is interesting to study the reactions of a group of science fiction authors to different plot stimuli. One newspaper clipping pertaining to some technical discovery may influence several writers in turning out stories based on the same general theme, yet it is pretty certain that all the resulting stories will be different in scope and treatment. Why? Mainly because the idea gleaned from the newspaper excerpt in each case served as a prod to the authors' imaginations, made them unleash on paper a group of individual ideas and observations they had been subconsciously accumulating for perhaps many months.

And so it is with our featured stories this month. Different stories, inspired in a variety of fashions. Here's the lowdown on the yarns in this issue—but make certain you've read them all before consulting this department!

SUPER-TELEPATHY

THE CHESSBOARD OF MARS, by **TEANDO BINDER**, carries one of the most fascinatingly original ideas we have seen in a long while.

Here's how the versatile author explains the origin of his plot:

CHESSBOARD OF MARS was inspired, so to speak, by an article in *Scientific American* some years back which tabulated the results of ten-year observations on mental phenomena at Columbia University. These tests, conducted on a strictly scientific basis and running into innumerable attempts at extra-sensory transmission of thought, gave rather clear indication that more than just the law of averages was working. In fact, it was flatly stated that there must be a direct transference of thought from mind to mind. The percentage was small, but undeniably there.

This concession by a comparatively staid popular science journal to the previously ridiculed idea of telepathy was, to me, a distinct score of imagination versus skepticism or materialism. A sort of Jules Vernian victory for pseudo-science, which has long taken telepathy for granted. Therefore, a telepathy story was in order.

That was the genesis of the inspiration. The plot-idea came about more gradually. I needed a new angle on telepathy, a new series of causes and effects involving that mysterious transference of thought radiations, whatever they are, which accounts perhaps for so much of the unexplainable in human life. And human history. History—telepathy. Somehow they seemed to tag. Who knows how many of the events in history have been a result of mental phenomena, not only those of demented kings but of psycho-sensitive keystone figures.

But here, I was getting away from science fiction into philosophical rambling. It needed an injection of fantasy. History—telepathy—and what more? Alien control. They were as incommensurable at first as a square and a circle, with a tesseract thrown in. Yet eventually it worked out. To what degree of coherence, though, only you readers can say.

THE VEIL OF TIME

ARTHUR L. ZAGAT uncovers the veil of the future centuries in his time-traveling novelette, **LOST IN TIME**. Here's what he has to say about it:

Sometimes a story tells itself to the writer, as though he were an automatic transmitter of a message from Beyond the Veil, and in no measure the creator.

That is exactly what happened with **LOST IN TIME**. I had no more idea of what was going to happen to Jim Dunning, when he leaped to the wheel of his yawl in a frantic effort to escape the threat of the flaming pillar that spewed out of the calm Pacific than you had when you started reading the manuscript. And every incident after that wrote itself fresh on the paper in front of me without forming first in my brain.

Believe it or not, that is the "Story Behind the Story" of **LOST IN TIME**. I don't know whether it means nothing, or whether it means that somewhere, some time, its incidents have happened or will happen; that I have been the involuntary, unknowing medium of some incredible clairvoyance.

THE SPACE-TIME CONTINUUM

THE BLACK VORTEX, by **FRANK B. LONG, JR.**, is an unusual tale of cosmic phenomena that contains a double idea. How the story materialized from idle speculation into cold print makes interesting reading:

In the **BLACK VORTEX** I have tried to clothe in garments of imaginative prose the stripped bones of two ideas which have fascinated me for some time. Previous speculation has encumbered the mysterious character of the space-time continuum and the immense uncertainty which veils the future of man's life on Earth with trimmings which have left the basic, skeletal framework obscured. Some of these speculations are enthralling and I am grateful for them. But before writing my story I was compelled to strip them away, leaving the bones exposed, but not dry. Bones so fascinating must always drip with wonder. I do not claim that my garments fit this bright and wonderful skeleton with cosmic precision. It probably looks a bit cramped in them—as it does in the garments of all of my predecessors. But at least it is a new suit, a new set of trimmings and peculiarly my own. Jeans and Eddington could make a more scholarly job of it, but the subject is fascinating and glorious enough to challenge the ingenuity of a thousand thousand more obscure and less learned tailors, and if this little imaginative excursion of mine—into which I have put a great deal of reverent reflection and mental elbow grease—seriously turns the thoughts of even a few readers toward what is unquestionably the sublimest mystery of the Universe, I shall rest content.

ALIEN LIFE

NOTHING is so popular these days as the science fiction story which introduces new and alien forms of life. **ARTHUR**
(Concluded on Page 12)

The CHESSBOARD OF MARS

Professor Thode Combs the Entire Ether Spectrum in
Search of the Elusive Psycho-wave—and Discovers
a World Saturated with Vibrations of Hate!

A Complete Novelette By EANDO BINDER

Author of "Judgment Sun," "From Dawn to Dusk," etc.

CHAPTER I

The Great Change

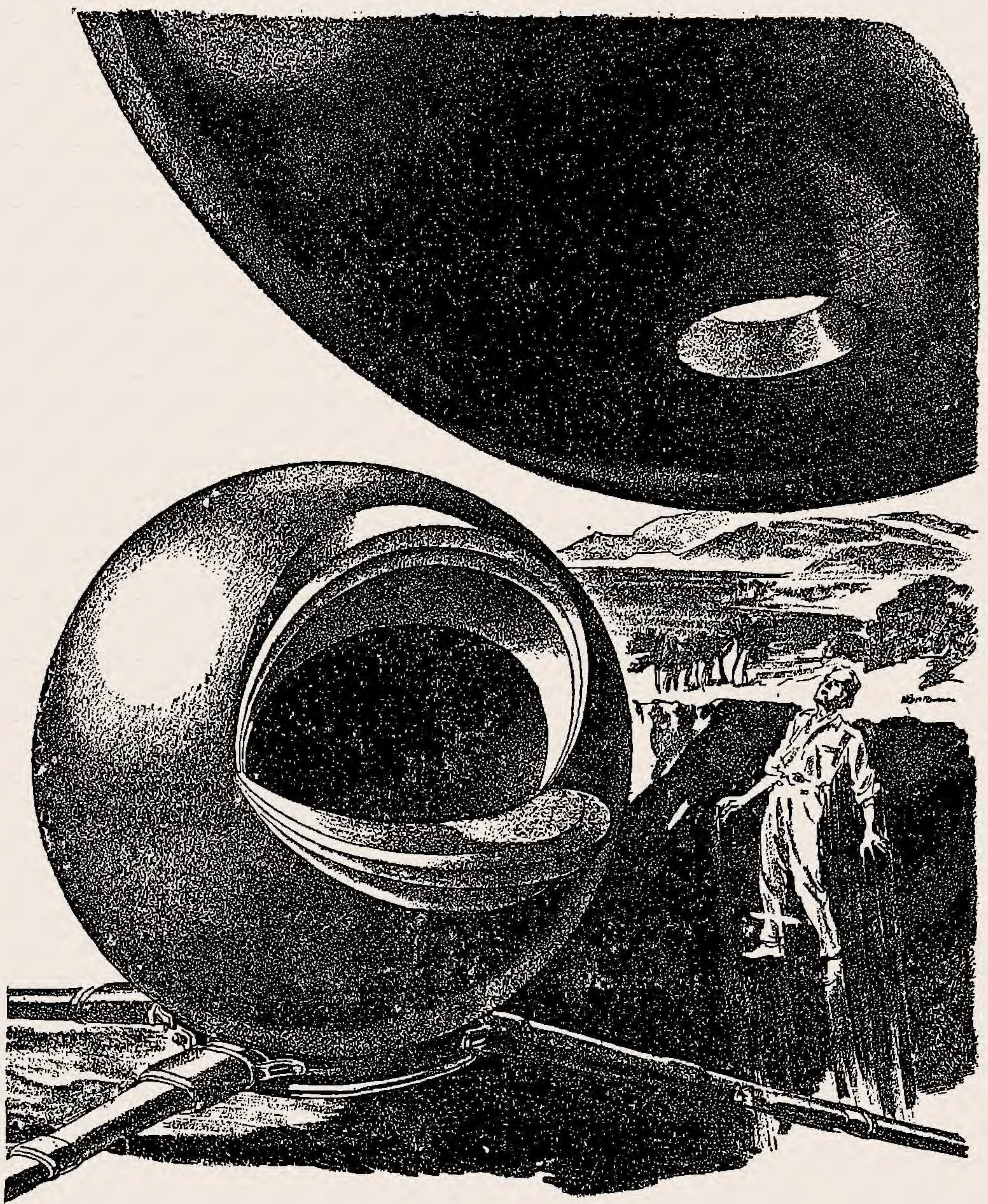
STUPENDOUS things have happened in this world, but nothing as stupendous as the Great Change that came over Earth in 1938.

At first it was just a subtle change, hardly noticeable. It was not a physical change. Continents did not sink, nor did tidal waves engulf cities. Nothing visible or tangible occurred at all. Nevertheless, it was different.

Manifestations were numerous, yet hard to define. First of all, a greedy



He saw the professor being catapulted into the hole.



little nation dreaming the dreams that Caesar and Napoleon had also once dreamed, suddenly and inexplicably withdrew her powerful navy from the Hawaiian Islands, thus taking away the threat of war between herself and another great power. At the same time she demobilized from the Siberian front, when it was expected that within a month she would have swept into the wheat fields of the north, robbing them from a frantic European nation. Not long after, these two enemies signed an everlasting peace treaty.

That was the first major indication of the Great Change. It was not long after that the big powers of Europe, so delicately balanced on the verge of a disastrous war, demobilized from opposing frontiers, almost all at once. And in another few months a dozen short and honest treaties made war remote and unthinkable. Before a decade had passed, all Europe united to form a commonwealth for the betterment of all concerned—a union not in name only, but in fact.

These astounding results in the in-

ternational field were matched by equally amazing changes in the general, everyday life of mankind. People began to grow kinder toward one another. A feeling of brotherhood sprang up and waxed stronger day by day. It is safe to say that a person taken from the twentieth century prior to July, 1938, and transported suddenly to July of 1939, would swear he was on some other world than that he had known, because of the difference in human relationship occasioned by the Change.

For instance, up in the hills of Kentucky, two lanky, bearded, drawling-tongued backwoodsmen, armed with rifles, faced one another shyly and finally shook hands. That was in September of 1938. A few months before those two would have shot it out between them, for their feud went back a hundred years. And so on and on.

It was as though the human race had labored for countless centuries under an incubus of evil, which had suddenly, in July of 1938, been wrenched away from Earth and flung into the nethermost voids of space.

THE two experimenters stood before a sprawling apparatus on the workbench, whose various unorthodox parts were connected with strands of silvery-looking wire, but paler in color. A modest fortune in beryllium lay there, and its many lines were to carry a new type of energy—a leaping, sizzling kind of energy that would have burned copper to vapor, and would have caused even silver to weaken and soften. Some of the coils of beryllium were immersed in vats of liquid air to preserve them from a like fate.

A dialed panel reposed at the center of the maze, with a series of button switches and illumined indicators over its surface. Hardly breathing, the two men watched the meters as the professor slowly twisted one dial after another. Up above, hung from the ceiling, and connected to the panel by a single wire, was a triangle of delicate wiring, again beryllium.

It was the aerial for psycho-waves.

Suddenly there was sound, and the two men stiffened attentively. Yet it

was not sound! Nothing came through the air from the apparatus to their ears, yet they seemed to hear voices! Voices that went directly to their brains, without going through their auditory organs.

They were simply thought-waves, vastly amplified by the psycho-receiver, and so powerful that they impinged directly on the auditory seat of the brain.

In awe and wonder they looked at each other's toil-lined faces as they heard the cacophonous voices of a million different people. They were hopelessly entangled, like a radio receiver attuned to the entire wave-band at once.

"The voice of the world!" whispered Professor Thode almost reverently. "The constant flow of thought that whirls about our heads and is never heard except in a few instances. Every human on Earth must always be thinking something, but the thoughts can never be detected except by super-sensitive minds, and then only under exceptional circumstances—those carefully arranged experiments in telepathy. With this sort of receiver and amplifier, one can be in touch with all the world's thoughts at once. Listen now while I turn the selector dial." His face held a rapt expression.

The scientist twisted the dial and clutched at his chest as a dry cough bent him almost double. He would have fallen except that Fred Bilde, his assistant, caught him in strong arms and helped him to a chair.

"Success, Fred! Success!" cried the old scientist weakly when his coughing had subsided.

That ecstasy of achievement had cost them ten years of painstaking research, and most of the professor's fortune. Ten years before, Professor Boris Thode, retired from the industrial boom that had enriched him, had said:

"The mystery of thought! How is it born? How does it manifest itself? Regardless of the contempt that science associates with telepathy, I truly believe in it, and believe that thought can be transmitted as readily as voice, as light, as electricity, if only we knew the means!"

AT the time it had seemed to Fred Bilte that they had completely lost themselves in a maze of pseudo-science. They pursued research that was only half science, the other half something beyond.

They had combed the entire ether spectrum in the search for thought-waves. Cosmic rays, gamma rays, X-rays had been the first three steps. Then had come the examination of several octaves only slightly explored by others. The ultra-violet, visible light, and infra-red had been dissected for their purpose. Another little known gap in the scale next, and then the radio waves, and finally the alternating current waves.

Each of these had been suspected in turn of being the range of psychowaves, but what they had sought had not been found.

They had gone further. Above the scale they explored waves that were possibly the answer to the condensation of nebulae, but were not in any way related to thought radiation.

Then, below the cosmic rays, they came across radiations, half electromagnetic, half something else, that were closely related to gravitation. These had proved to be a sort of transition product between ether emanations and waves that had no measurable velocity. Just as the Archaeopteryx was a transition between reptiles and birds in prehistoric times.

The Z-rays, they were tentatively named. They had a shorter wavelength than the cosmic rays and a still more terrific penetrative power. They were apparently the next step above the gravitation rays, which were undoubtedly infinitely penetrative. In common with the latter, these Z-rays had an almost infinite velocity in that mysterious sub-ether beyond the electromagnetic ether.

It was only a year before that the professor had said, eagerly, tensely:

"All electromagnetic waves have a constant speed, something over 186,000 miles a second. These new Z-rays below the cosmic, of a different order, must have a far higher speed, possibly beyond measurement. And the penetration of thought, though figurative,

is proverbial! Come on! There's work ahead, and hope!"

A month after they had succeeded in first absorbing thought-waves out of the air, they had completed a pair of miniature psycho-receivers modeled after the big set, with which they planned to carry out tests of range and selectivity. These were contained in small, flat wooden cases that fitted easily into their pocket. The energy supply was a batterylike, tiny cylinder of cellophane containing delicate coils of gossamer beryllium.

"It is simple," explained the professor at the doubt that was still in Bilte's face. "Suppose we are separated now by a distance of a hundred miles. I send my thoughts out. Your receiver picks them up instantaneously and amplifies them—"

"But *what* amplifies them?" insisted Bilte.

"Your own thought emanations!" the old scientist smiled. He was again a jump ahead of his assistant. "Your own psycho-waves, constantly contacting the receiver-coils in your pocket, induce a psycho-current which amplifies the far weaker waves coming from me. There is an analogy in radio transmission; very weak stations are sometimes caught up in the carrier wave of a powerful station and are thereby greatly amplified. The carrier wave of your psycho-waves will similarly pick up and strengthen my incoming emanations."

"But then I will be receiving both sets of thoughts—"

"Well, I hope," grinned the professor, "that you can distinguish your own thoughts from mine!"

Bilte grinned sheepishly in return. "Then as long as these test receivers are done, let's try them out."

"All right. You have a sister in Los Angeles, Fred, whom you haven't visited for some time?"

"Not for three years."

"Then take a trip down there, and we'll see if these psycho-phones, as we may call them, will give us an unbroken connection. Each hour during the day, on the hour, we will connect up and transmit to one another short sentences of any kind, which each of

us will record in writing at both ends. Then, on your return, we'll compare notes. Now pack up and go, but be back in two weeks."

CHAPTER II

Mass Psychology

BILTE returned from Los Angeles July 1, 1938. That date meant nothing in particular to the two experimenters, but to the world it was to mean that three weeks later would come the Great Change.

A comparison of notes indicated that their connection had been complete and perfect at all times. It struck a sort of wonder in their minds to think that two humans, separated by hundreds of miles, could converse freely with but a slight mental effort.

Radio was much the same, but required ponderous apparatus and much attention. With the psycho-phones, communication was magically simple.

Professor Thode was elated at the success in this first step toward applied telepathy, but Bilte noticed before he had been back long that the elderly scientist seemed pre-occupied. Even while comparing notes and commenting on the different phases of the experiment, the professor's attention wandered erratically.

"What is it professor?" asked Bilte finally, pushing the written pages aside.

Professor Thode started and then motioned for them to go into the laboratory. Striding to the set with which they had first received outside thought waves, he snapped the on-switch. He made no motion to alter the tuning.

Suddenly it came, a loud "voice"—yet it was not a voice as those other thought pickups had been. It seemed to be more of an emotion that had somehow been converted into a psycho-wave. No actual word-thoughts were distinguishable, yet the general meaning of the message became clearer as the amplified emanations continued to radiate from the set.

Bilte looked in amazement at the

professor as he felt his heart pump faster and his muscles unconsciously tighten.

"Just what is it?" he asked, perplexed. "It isn't really a definite message. It seems more like a—an emotion! As if we had tuned in the incoherent thoughts of an enraged man!"

"Whatever it is," murmured the professor, "it comes in from at least a hundred different psycho-wave-lengths, like a chain station! And there's something ominous, threatening about it!"

They stared at each other silently for a moment.

"Just what do you think it means?" whispered Bilte.

Withholding an answer, the professor pointed to the panel board. A fine needle, delicately balanced on a sharp agate pivot, reposed there in a hollow formed by a group of beryllium coils.

"I've constructed a psycho-sensitive unit," explained the professor, "which will point to the source of any psycho-wave when connected to the big set. Watch."

As soon as the mysterious message began again to emanate from the set, the sensitized needle flicked back and forth in wide gyrations. When it gradually subsided it pointed out of the window across the blue of the Pacific.

"Which means," said the old scientist, "that the source of the radiation lies somewhere out in the Pacific—or across it, in Asia. With the power with which it comes in, supposing it to be at least a thousand miles away, the source must be a greatly energized one. Obviously, no single human mind could produce such a powerful thought-emanation without some sort of amplification."

"You mean," gasped Bilte, "that someone else has — has accomplished what we have and—"

PROFESSOR THODE nodded reluctantly.

"Either that, or it may be the combined mass radiation of a group of people." His eyes narrowed strangely. "Mass psychology directed toward one goal — almost mass hypnotism. This psycho-message that we receive so powerfully and on so many different

wave-lengths may be the fighting spirit of a nation, feeding and constantly renewing itself on military propaganda! You will notice that the needle pointed directly west—directly toward Japan!”

Then he stirred himself at Bilde's incredulous stare.

“Yes, far-fetched I know, Fred. Either of the two possibilities has me intrigued. I couldn't rest without knowing the true answer. Therefore, we'll track down the source of this super-powerful psycho-radiation!”

Aboard an ocean liner speeding toward Japan, the two experimenters became daily more excited as the needle never failed to point westward to the land of flowers and sloe-eyed people. It was a half day before docking that they made a final test. They watched the swinging needle come to a rigid halt.

The professor uttered a surprised exclamation and bent lower over the needle.

“Good Lord! It isn't pointing to Japan now, at least not to Japan proper. It lines up—” he hastily unfolded a map of the Japanese archipelago — “with the first of the Kurile Islands!”

He sat down weakly. “That then precludes my theory.”

Bilde fidgeted uneasily.

“Well, if it isn't the mass mind-delusion of a great number of people, and since it can't be the emanation of one single mind, it must be a mechanically amplified psycho-radiation.” He shuddered a bit. “The nearer we draw to the source, the more I feel a sort of involuntary animosity—a dissatisfaction with lots of things.”

Professor Thode nodded.

“I feel it too—rolling waves beating at our subconscious minds, stirring our fighting blood, just like fanfares of martial music! Foreign correspondents have mentioned that strange feeling of restlessness and militarism, as though all the nation were bathed in the fiery breath of Mars, god of war; as in Central Europe in 1913 and 1914. The breath of Mars—”

The professor's voice suddenly hardened.

“Suppose a Japanese scientist stumbled on psycho-phenomena in his re-

search, and progressed with it as far or farther than we, to the point where amplification of psycho-waves is possible. Suppose he decided to conceal his discovery from the world, and instead pervert it to evil use—to the purpose of stirring his people to conquest! That man could have set up to the north where our needle points, a powerful thought amplifier with which to accomplish that purpose!”

“Very possible,” agreed Bilde gloomily. “But how could he—this hypothetical Machiavelli—control his emanations so that only the Japanese people were subject to their influence?”

“He wouldn't have to control them. The most direct and powerful of them would saturate Japan and the east coast of Asia, which is under Japanese dominance anyway. To the north and east and south, the radiations would go a long way before impinging upon large groups of other races. In fact, it may be those tailings of the original radiations that have so stirred Europe today, and placed it on the brink of another fearful internal war.”

It was perhaps at this point that the two men began to realize that they had stumbled onto things of major importance.

“Fred,” said the old scientist later, in a low fierce voice of determination, “regardless of the consequences, you and I are going to trace down this mysterious psycho-emanation!”

CHAPTER III

The Sphere in Space

THEY landed in Tokyo and immediately embarked again on a coastal steamer for Nemuro, on the island of Yeddo. Some seventy miles to the northeast was the first of the Kurile Islands, and the needle pointed rigidly in its direction. There was two days' delay at Nemuro before much argument and bribery convinced the Japanese port officials that the two American tourists were not spies.

In calm, clear weather, Professor Thode and his assistant, chauffeured by

a taciturn native, motored their way in a launch to the island at which their needle pointed like a damning finger of accusation.

By judicious use of a compass and their sense of direction, they were able to determine, three hours later, that they had reached the approximate point where the needle's line of extension intersected the coast. They landed at a stretch of weed-grown sandiness. Standing on the shore, Bilte hesitated.

"We are absolutely unarmed, professor, and we don't know what we are walking into—"

But the old scientist had already set the needle apparatus on the sand, and again closed the switch. The quivering needle swung in a lightning quarter circle and fastened rigidly to the northwest, without the least hesitant swinging back and forth as formerly.

The two men looked at each other significantly.

"It must be very close!" whispered Bilte hoarsely.

Professor Thode was already making his way toward a fringe of gnarled bushy growths further down the shore, beyond which nothing could be distinguished. Almost like a robot he strode along, and Bilte felt it would be better to check him before he ran into something unexpected. But as he was about to call, he saw from the corner of his eye that the pilot was tugging at the launch to shove off. To the unknowing pilot, the place seemed bewitched with ghostlike voices.

With a shout Bilte turned back, and pulled him away before he could get the nose of the launch off the sand. And when Bilte next turned around, the professor was nowhere in sight!

He stood a moment, undecided. Then he heaved at the launch with all his strength, pulling it as far up on the sand as he could. Thereupon, he left the beach, reasonably certain that the pilot, with his slighter strength, could not drag the launch clear by himself. At a trot, then, he made for the thickets and snapped on his pocket psychophone while he ran, hoping to contact the professor in that way. But it was a useless hope, as the very strength of the projector's emanations was suffi-

cient to drown out any lesser psychowaves.

Reaching the thickets, Bilte crashed through the bushy growths, unmindful of clinging tendrils and barbs that scratched his skin. Soon he came out upon clear land that sloped gently upward for a hundred feet, and then abruptly veered off into a large depression. The professor was still nowhere to be seen, and a worried frown came to Bilte's forehead.

He ran forward toward the closer edge of the large depression ahead. When he had struggled up the short slope, the whole of the little valley suddenly swung into his line of vision, and he stopped frozen dumbfounded in utter amazement.

AT the exact center of the huge depression was an apparatus whose top did not rise above the general ground level. Set on a wide spreading tripod, it consisted of nothing more than a colossal metal globe whose one surface—that facing southwest toward Japan — was punctured by a flanged aperture, as though from it something was meant to pour.

Evidently that was the "projector" that he and the professor had suspected to exist on the island. But the other thing his eyes saw he was not to understand until later.

Back of the projector was another spherical globe of metal, but this did not seem to be a permanent part of the apparatus, since it was suspended off the ground a few feet. That in itself was astounding — a large spheroid of metal hanging in the air like a feather!

At the same time that Bilte saw the projector and the suspended globe, he saw the professor, and a hoarse, choked cry burst from his throat. He had no time to shout again, or to rush to his assistance. The suspended spheroid quite suddenly leaped through the air, right over the cringing professor, who had evidently been examining the projector.

A hole yawned in its under-surface, and—Bilte gasped in disbelief—the professor, without any voluntary motion on his part, arose and catapulted into the hole, as though an invisible

giant's hand had yanked him off the ground.

Then the hole in the spheroid closed, and without a sound the amazing object levitated itself away from the ground, and gradually disappeared into the blue sky.

Bilte crouched at the depression's edge for a full minute, unable to collect his scattered senses. Then he staggered in a daze back to the stretch of beach. Scratched and bleeding, enervated by the shock of what he had seen, Bilte hardly noticed at first that the pilot was frantically tugging at the launch, and had almost succeeded in shoving it clear. Bilte broke into a stumbling run, shouting madly, and arrived just in time to climb into the boat with the pilot.

Hours later, Bilte awoke from a mental lethargy to notice the quays and docks of Nemuro rapidly approaching. Utterly deflated in spirit, he went directly to his dingy hotel room. All that afternoon and evening he paced to and fro, trying to think coherently. What had the spherical vessel been? Where was the professor now? What was to be his fate? What should he, Fred Bilte, do now? What *could* he do!

That same evening, dinnerless and sleepless, Bilte began to think he was going mad. He imagined he was hearing the professor calling his name. More than once he half turned, ready to swear the professor must be there. Suddenly he gasped, and with trembling fingers pulled out his pocket psycho-phone, cursing himself aloud for having completely forgotten that he had neglected such a direct means of communication.

IMMEDIATELY, at the snap of the switch, the professor's psycho-voice reverberated in Bilte's mind, calling his name over and over.

"Professor!" half shouted Bilte.

"Fred! Thank God you've finally closed our contact. I've been trying to connect with you for hours."

"Professor, are you safe? Where are you? What—"

"Fred, stop! Listen to me. There is no time to lose. I can't tell you

much, because I haven't found out much. But you've got to get away from Japan and back to the States—back to our laboratory. I've been locked into a little room in this ship without seeing anybody, but I know it has been moving all the time, its speed constantly accelerating, and must be going somewhere. That somewhere must be the hideout or headquarters of these people who have made the projector. The one thing in our favor is that apparently they didn't know you were with me on that island. That means I can relay what I learn to you.

"But it will take the big set, back home, to do that if this ship goes much further. I will begin contacting you again in five days, whether or not you give me a return call. If I'm out of range of your psycho-phone, I will have no way of knowing whether you are listening or not, but it's all we can do. Oh, if only our big set could transmit as well as receive! Anyway, I'm going to see the finish of this and pass what I find out along to you. Now get out of Japan and hurry!"

Perhaps the two servants in Professor Thode's laboratory-home were surprised at Bilte's orders when he returned from their foreign trip. A couch was installed in the experiment room beside the big psycho-receiver, and meals were to be brought in regularly. He was to be left strictly alone at all times, and they were not to worry about Professor Thode—he had gone to China and would be back some time in the future.

CHAPTER IV

The Voice from the Ether

IT was during the evening of July 17, 1938, that Professor Thode's psycho-voice first came over the big set.

"Fred, are you listening?" it began. "God! How useless for me to ask a question whose answer I may never know! I have just found out several things, one of which makes it impossible for you ever to contact me with

the psycho-phone.

"Fred! I told you the ship was accelerating. That puzzled me, and probably you too. Only one type of ship would do that—a space ship. Well, I'm on a space ship!"

Bilte bit his tongue. Drops of blood fell unnoticed from his lips.

The psycho-voice went on:

"Yes, Fred, I'm on a space ship. Just an hour ago, the door of my prison opened and before me stood a creature—well, a creature. I will not attempt to describe him. You can believe me that I was thoroughly frightened and thought I was mad, especially when the creature spoke to me—in English—and addressed me as 'Earthman.' To make it short, he informed me that I was aboard a space ship bound for the planet Mars, and that he was a Martian. My skepticism must have shown itself in my face, for the creature then took me by the hand and led me up corridors and passageways in this amazing vessel and finally brought me before a window.

"And there it was—Earth, a green-grey ball hanging in space!

"You can't imagine the shock of it, Fred, nor the wonder and glory of it—seeing the heavens from a space ship. The amazing blackness of space, the steely stars, the impression of tremendous depth, the shuddering awe of its immensity. And then Earth—but a ball, a mote, hanging in the nothingness, its surface indistinct with a gauzy halo over it.

"I wonder how long I just stood there and stared! Finally I turned to my guide. He seemed amused by my awe.

"'Earthman,' he said, 'does your mind reel at these things? I see it does. Naturally it would. I forget that the undeveloped intelligence of Earth has thought of space travel as remote and in the main improbable, if not actually impossible.'

"'Sir,' I said, not knowing how else to address him, 'This is like a miracle!'

"The creature—or Martian, as I should say—laughed insolently and Fred, from that moment on I hated him! It would be hard to explain why. Perhaps if his acid laugh, and the pe-

culiar tones of his voice rang in your ears, you too would promptly hate him—this creature. His whole demeanor was condescending and arrogant; oh, ten times more arrogant and contemptuous than the most conceited ruler of Rome could ever have been. He made me feel, during those few minutes we were together, that I was a crawling worm that had to get out of his path before being stepped upon.

"I am back in my little room—my prison—now. They have been feeding me regularly, a liquid food, very sweet but satisfying. The room I'm in has a higher air pressure than outside, and seems to be equipped especially for an Earthman. I wonder what that means?

"Of course, a thousand and one other speculations have been torturing me. What was this Martian, and his companions, doing on Earth? What is their connection with the projection of the psycho-wave that is inundating Japan with its insidious influence? Why am I being taken to Mars?

"God! At times I feel I have gone mad, or that this is a horrible nightmare. And yet this seems to be real—Fred, tell me, am I—"

THE incoming psycho-voice jumbled for a moment. Bilte crushed his knuckles against the hard bench top till the skin cracked. Then again came from the void:

"I shall have to remember I am a scientist, Fred, and as such must keep my wits. I've figured that I have been aboard now over six Earth days, and we can't be more than halfway, if that. I suppose you have already added a hexa-bank amplifier to the set. Probably you'll have to add another to be able to catch my waves when and if I arrive on Mars. Thank heaven psycho-waves have such a great penetrating power and—oh!"

Bilte started and turned paler at the agonized gasp that registered from the professor. Then his voice again, broken:

"Accelerating — tremendously — tons of weight—"

That was all and Bilte staggered to a chair, mopping a feverish brow. For

twenty-four hours there was utter silence from the psycho-ether tuned to Professor Thode's wave-length, and Bilte grew haggard in anxiety. In the early morning of July 19th, the suspense ended. Thereafter the professor radiated messages three separate times—a lost soul crying from a spatial wilderness. Only Fred Bilte was ever to know the full details of Professor Thode's three messages from the planet Mars.

July 19, 2 A. M.

The ship has landed on Mars, Fred. When I last contacted you a full day ago, our connection was broken when I was hurled against the wall by a terrific surge of the ship. Soon after I lost consciousness, and when I next opened my eyes, I could see through a window that we were no longer in space, but on a solid surface. In short, on Mars!

If I could somehow transmit to you psycho-television, perhaps you might then gain some idea of this Martian city that spreads before me. Imagine spires and towers a mile high; bulbous dwelling places suspended at any and all heights; majestic edifices that could house a hundred of Earth's ocean liners; columnar decorations glinting with inlaid jewels and burnished metals—all intertwined and connected with conduits and tunnels and such.

This is a city of Mars I'm in, Fred, and the *only* city!

I've found out many things. The duration of intelligent life on Mars goes back to a half million years ago. It was that long ago that the Martians had already invented speech and writing and the first beginnings of science. Their early history—when Earth was but a primeval jungle—is curiously parallel to our recorded history: a series of wars, famines, pestilences, revolutions, and mass migrations. They had seas then and continents and islands, just as on Earth.

It was a hundred thousand years after their first written records that spatial navigation became possible to their science, and the Martians swarmed all over the Solar System. No life was found on any of the outer planets, nor on their satellites, by rea-

son of their remoteness from the life-giving sun. Mercury supported a hardy silicic form of unintelligent life. Venus and Earth were steamy pots of struggling evolutionary forms of life, and man was yet unborn on our world.

Thus the Martians were sole rulers and masters of the Solar System. For the next hundred thousand years the most precious and useful products of all the different planets were brought to Mars to further and make great Martian civilization.

BUT the next hundred thousand year period was a period of breaking down rather than building up. With the immense strides of their science, deadly and horrible weapons of destruction were developed, and the various classes and races fell on one another and waged war. These periodic wars gradually became more and more catastrophic and disastrous, and the once teeming and thriving population dwindled.

It is hard to believe, but my Martian mentor—his name is Sokon—intimated that for a long time the sole ambition, thought, and endeavor of all Mars was warfare and military dominion. First one race and then another gained ascendancy in endless cycles that might have gone on forever.

Truly, Fred, from what I've learned, this planet was rightfully, even if accidentally, named after the god of war—Mars!

But it could not go on indefinitely, because of the rapidity with which the population dwindled. About fifty thousand years ago all the planet lay wasted and war-torn and its denizens numbered but a few millions, scattered all over the planet in little, proud, isolated communities, each a deadly enemy of the other.

You can surmise, that while the long series of wars went on, scientific advancement was hampered and the peaceful trades fell almost to nothing. I am beginning to think, Fred, that warfare on Earth is a small thing compared to what it must be in such an advanced, superscientific world.

But just when it seemed that their civilization was doomed to suicide—

the few millions left would not feed their weapons more than another century—a salvation came to them.

That, Fred, is all I know of the story of Mars. For some strange—and I fear awful—reason, my mentor would tell me no more on the subject. How the unity of the warlike Martians was achieved I shall tell you when I find out.

Someone is coming into my room now, Fred! Goodby! You'll hear from me—if Providence wills it—as soon as I can manage it in secrecy, as I fear to transmit in the presence of Sokon.

July 20, 4 A. M.

I have finally got the chance to transmit to you again, Fred, but you will never know what torture I went through for a while before I could bring myself to contact you again. Perhaps it would be better that you should never hear this that I have learned in the past day here on Mars.

But I have made the decision to tell you all, Fred, and if it plunges your mind into a fog such as mine, God forgive me for the act!

Some hours ago Sokon took me to the roof of this giant building and into an airship. In this vehicle we darted over the immense mazes of this city to its outskirts. There the ship lowered to what must be the largest building on Mars. I estimate it at a mile square, yet it is not high.

Not a word did Sokon speak all this time. But after landing on the roof of this Cyclopean structure, he faced me with a strange and dreadful smile.

"Earthman," he said with a wicked sort of gloat in his voice, "now you shall find the answers to all your questions. Look around"—he waved an arm to include the conglomeration of strange apparatuses spread all over the roof near the landing field—"and know that from here is controlled the superficial destiny of Earth!"

OF Earth! Of Earth!

The searing thought rocketed through my brain and made me weak. What could he mean? I was soon to know.

The apparatus, I might explain, seemed to my wavering mind a hope-

less maze of geared machinery all covered with some transparent protective material, from which protruded hundreds of long, thin spouts, or nozzles. Meaningless for the moment, but later they came to have a frightful significance.

Sokon then took me down an elevator, down into the building itself. I wish I could picture for you the scene that met my unbelieving eyes as the elevator door opened and I was led out upon a balcony from which could be viewed the entire interior, which was one immense room.

All around me was the gigantic columned interior. Evenly spaced across the floor were hundreds of rows of apparatuses something like organ consoles, in each of which sat a Martian.

Close scrutiny of one of the affairs just below me revealed it as a circular button board in the center of which sat the operator. As I watched, his long arm with its sensitive fingers flicked buttons with marvelous rapidity, causing little pilot lights to flash. About his head was a maze of wires and tubes connected to the control board by several strands of heavy wire.

But what use to describe to you something whose immensity and alien-quality you could never grasp, except that it relieves my fevered mind to tell of these common details. I will go on, as Sokon went on when I had recovered from astonishment and wonder.

Sokon returned to the previous day's talk and picked up the thread of the story he had left unfinished. The Martians, faced with self-inflicted extinction, decided at last that it was foolish to fight among themselves when they could satiate their battle lust in a way not at all harmful to their persons. Earth had been explored, and on its surface had been found a form of life with rational intelligence, inhabiting forests and caves—the Paleolithic Man.

A diabolical plan was conceived, and with a hue and a cry the Martians adopted it in boundless enthusiasm.

With their marvelous science, and their full and complete understanding of psycho-phenomena, they built psy-

cho-transmitters capable of projecting psycho-beams all the way to Earth, which would give the Martians practical control of the activity of mankind on the young world!

CHAPTER V

The Chessboard of Mars

I CAN see you now, Fred, trembling and pale, not daring to believe. And yet, it is God's truth!

These control boards, at each of which sits a Martian like a gloating tyrant, are psycho-transmitters which project to Earth, at the will of the operator, any sort of psycho-emotion or actual direct thought. You will understand that the Martians have refined and improved their apparatus beyond our understanding, so that they can either fasten like a leech to one certain mind of Earth, or to a group, or to a whole nation, and pour their insidious psycho-emotions forth like a foul wave of slime.

And the sole purpose and aim of each Martian is to wreak as much bloodshed and harm as he can on Earth!

So all through the ages, while aboriginal man gradually arose from ignorance and darkness to the glimmerings of intelligence, the Martians have been holding mankind back, instigating wars, tribal battles, personal fights, and internecine revolutions, satisfying their bloodthirsty, warlike natures in playing warlord to Earth! Like an evil entity in the heavens, the Martians have been strewing the pages of Earth history with blood and gore and hatred and discontent.

It has always been the wonder and surprise of most intelligent people of our time, Fred, why mankind had wars at all, why there was constant bickering and battling when things could be settled so easily in more peaceful ways. "The beast in us" it was called, but actually it was the beast being put into us! And God only knows how far ahead the world might be on the road to true civilization if it weren't in the fatal, bloody grip of Mars.

All through the ages, then, our superficial destiny has been guided from Mars by beings who, not willing to battle themselves, have instead caused battles and bloodshed on another world. Sokon tediously traced Earth history for me, with which, naturally, all Martians are smugly familiar, and showed me all the innumerable incidents which we thought to be the course of fate and which were really the results of the Martians' psycho-waves—a vicarious means of satiating their lust for battle.

Just to give a few instances. Alexander the Great, world conqueror, was started on his bloody career by a Martian psycho-beam that from babyhood on stirred his fighting and ruling nature. The psycho-emotion goaded him and tormented him till he had to obey its call, and partly under its guidance, and partly due to the conditions under which he lived, he swept out from Macedonia and poured blood on dozens of battlefields. Alexander's whole army was constantly under the influence of a psycho-beam from Mars which made them so vicious and fighting mad that they swept all before them, including the Persian hosts of Darius.

Then Attila the Hun. His invasions were first conceived in a Martian brain and then forced on him so that he became one of the bloodiest and most vicious scourges in Earth's history. His little slant-eyed troops were bathed in a psycho-beam so powerful that some of the worst atrocities of all time were the result.

THEN Napoleon, the little corporal who as a youth dreamed of a great France. His dreams were not his own—they came hurtling across millions of miles of space and were implanted in his sensitive and keen mind. He arose, lashed by the hammering psycho-beams, and swept all Europe, wallowing in blood, sacrificing human lives in absolute indifference. Yet it was not Napoleon himself who cared so little for human life and suffering. It was the Martian across space who chuckled in glee when vast armies swept together and decimated one another.

Then, in the modern world that we know—the fearful carnage of the World War when mankind had advanced enough scientifically to produce terrible weapons that reminded the Martians of their own disbarred ones. In telling of this last Earth war, let me mention again the building and its psycho-controlboards.

The boards are divided among all the different nations that were formerly represented on Mars before their union. Each group, still as proud and hateful as of yore when they battled with guns instead of psycho-waves, concentrates itself on a certain warlike project on Earth. For instance, for the World War, the Martians decided to make it a grand and glorious game between two and only two sides.

Accordingly, half the boards were then relegated to control the Allies, and the other half the Central Powers.

I will never be able to erase from my mind, Fred, the unutterable look of evil glee on Sokon's face as he told me that never in all their fifty thousand years of playing had the Martians had so much "fun" as during the World War! It had been a grand game and had occasioned intense rivalry, and they had been sorry when it had finally ended!

Think of it, Fred! All Earth, every section and corner of it, constantly under the evil influence which darts from Mars at instantaneous velocity and submerges it in psycho-waves which have as much to do with the destiny of Earth's peoples as their own hampered efforts to rise above brutality and bloodshed and suffering!

The chief occupation of the Martians in the past ages of their civilization had been warfare. Now their chief occupation is playing on this gigantic chessboard of Mars, moving humans in paths of fate like the chess player moves his pawns and pieces!

And, Fred, the Martians had so much enjoyment out of the last World War, that they have again decided to play such a two-sided game. Japan is to be the nucleus of one warrior group, and Russia the nucleus of the other. They plan, so Sokon tells me, to draw into this war all the nations of Earth in a grand *melée* which they intend to make

a dozen times more horrible than the last holocaust!

Furthermore, Sokon informed me that the projector set up on that Kurile island, which we first thought to be the work of an Earth madman, is part of a secret plot of his to beat the other side. One of the "rules" of the game is that neither side shall set up concentration projectors on Earth itself, as this would give too much of an advantage to incite Earth all at once and destroy it completely. Sokon and several of his arch-plotters secretly went to Earth a year ago and set up the projector. This will incite the Japanese much faster than the enemy and cause them to arm more quickly and fight more viciously.

THIS reveals to me the true decadence and evil of the Martian nature in general. Whatever was the initial cause, the Martians grew up with a far greater heritage of warlikeness than—I am sure—ever reposed in Earth-people's basically gentle natures.

God, Fred! How long will my mind remain coherent when every second the thought beats a frenzied rhythm of hopelessness that Earth will never be free of the bloody Martian clutch till some far distant future when the two worlds may battle for supremacy.

If only there is something I could do! If only there is some way I could destroy them!

Good-by, Fred! Perhaps good-by for good. Sokon is waiting for my reeling mind to break down. He does this now and then with Earthmen, delighting to watch them fall to pieces when knowing the truth. If there is anything more I might want to transmit, wait for me a full Earth day. If I do not call by then, you will know that I am dead.

In a silence that seemed to echo with the satanic leers of other-world demons, Fred Bilte moved about the laboratory with a sort of aimless purpose. He rummaged in the cabinet, taking from it papers covered with scrawled formulae. Hours later he took the sizeable batch he had collected and burned them wholesale on the tile floor, opening a window to let the acrid smoke out. He

stared until the last flame went out. The secret of psycho-detection would not leave the laboratory.

Then he went to his couch. His eyes glinting with a bleakness like that of frigid space itself, he stretched himself out stiffly. His face was like a graven wax mask. He waited, not caring to sleep. He refused entrance to the manservant with a tray of food, and in the early hours of July 21st the professor's voice came again:

Fred! Fred! Are you there? Pray God you are. He had not tortured me enough, Sokon, so he again dragged me to the chessboard of human life not many hours after the first time, and went into vivid detail more horrible than I dare to relate to you, Fred.

Suddenly an enormous thought struck me. A mad thought. Yet it may have been a sublime thought. I will soon know.

Sokon, whom I will curse in my dying breath above all other Martians as the master fiend of them all, took me into the section whose psycho-boards are on the enemy side—Russia's side, you know, in this titanic Earth war they are instigating. One of that side's members threw a taunt to Sokon, which he returned with interest. The taunting grew and became a quarrel between the two Martians.

I merely stood by, seeing a plain example before my eyes of how warlike and hot-headed Martians are when even in their game they will come to blows.

It was then the thought struck me. I obeyed my sudden inclination to carry it through and dashed away from the two bickering Martians, and ran further into the section whose members are opposed to Sokon in the war game they are playing

I BETRAYED Sokon at the top of my voice and told his opponents of the illegal projector which had been set up on Earth. Head after head stirred from the boards and jerked up. Dozens of pairs of eyes within range of my voice heard and grew wrathful.

Then Sokon came bearing down on me, having heard a little and surmised the rest. He fastened his baleful, speckled eyes on me, and my voice died

in my throat. I made a brief prayer and waited for death.

But it did not come! No, it did not come, Fred!

I opened my eyes a moment later to find a dozen Martians, all enemies to Sokon, protecting me from him. Furthermore, they were demanding something from him and I could easily guess what.

I know little or nothing of just what was done then. I was led by the hand to a little cupola of transparent material which overhangs the entire interior of the building. In it are strange instruments that I can guess are deadly weapons. This cupola, I surmise, is a sort of policing center to insure peace in the assembly. The guns are on pivots and can rake any part of the building.

I am here in that cupola above the chessboards now, Fred. I have not been fed for several hours. My throat is parched and dry. I am numb from mental agony. Yet a faint spark of hope has been born within me. Not hope for myself, no. What does my single life mean? But hope for Earth! Perhaps the investigation will result in removal of the projector on Earth.

That there is an investigation in progress, I know. One of the fellows up here in the cupola—there are dozens of them, equally divided in allegiance—casually told me that as soon as the right part of Earth's surface turns in the direction of Mars, their powerful telescopes will examine the Kurile Islands for that outlawed projector. I asked what would be the result when it was found. He made a shrugging gesture, but I noticed that his hand unconsciously caressed the gun near him.

There is nothing more to say, Fred, except that there is unrest in the very atmosphere around here. I can almost feel the hatred and suspicion welling up between the two sides. What the outcome of my action in betraying Sokon will be, I don't know. But almost all my suffering at that devil's hands is repaid at the thought that at least I've put him in a troublesome predicament.

The voice ceased. Later it burst forth again, trembling with excitement:

A message, Fred! A message corroborating my story—the telescopes saw the projector! Also they saw something more—a space ship landing beside it and blowing it to drifting dust. Sokon had sent a space ship post haste to Earth to destroy the incriminating evidence of his treachery, but too late!

I hardly know what to say about things here now. Excitement is running high. Many Martians have left their boards and are gathering in little groups. There is much shouting back and forth. The very air is electrified with wrath and hatred. Sokon is down there conferring with his henchmen. His opponents are glaring angrily in his direction, for he has been a leader of the other side.

THE fellows up in this gun-cage are very nervous and fidgety. They have in their hands the power, probably to wipe out all below them. The sympathizers of Sokon in the cupola are sitting at their guns. The others are watching the scene below. They should be—

Something's beginning now!

A group from Sokon's opposition is running at him, shouting. Sokon faces about in fear—it is the beginning of a mob riot! They near him . . . several Martians tumble in the rush . . . God! . . . Sokon's gunners just shot down a livid bolt of something that whiffed a dozen Martians to dust! Now the opposing gunners retaliate with a bolt to the other side!

It is a battle royal now!

Without restraint the gunners are

shooting down rioting Martians! Hundreds have been converted to puffs of vapor. Good! Good! This in a small measure repays Earth for the sacrifice of her murdered people. This thing is getting bigger and bigger perhaps it will become . . .

Yes! Part of the roof has been disintegrated. At its edges appear Martians from the city with weapons that they rapidly install like machine-guns . . . the disintegrating bolts are becoming thick . . . the battling and rioting is turning into an actual war. I can see centuries of repression swelling into a terrific bloodlust.

I see a giant airship . . . it hovers above the roof . . . the roof puffs away . . . a searing ray springs from the ship . . . it is sweeping in circles and in its path nothing remains . . . death for the Martians . . . my heart sings!

The gunners here are busy wiping out their fellowmen in absolute war-madness. It is awful, that look in their eyes! Now is my chance. I am stealing over to the giant chessboard psycho-transmitter. A few twists of several different levers, and I am ready to start.

I'm wiping out the entire bloody planet, Fred . . . I'm concentrating on the thought that every Martian kill his neighbor, kill himself . . . Never before have the psycho-waves been used at such short range . . . The psycho-transmitter is now focused to envelop all Mars with its waves of hate . . . I'm not leaving this machine until I have destroyed every Martian, one by one

WHAT IS YOUR SCIENCE KNOWLEDGE?

Test Yourself by This Questionnaire

- 1—How many electrons are there in a potassium atom?
- 2—What is Polyphemus, in the astronomical sense?
- 3—What is the lightest element?
- 4—What is the Douglas-Hunt process of precipitation?
- 5—Name five different rays known to science.
- 6—Will a perfect vacuum carry an electrical discharge?
- 7—What insect can travel better than eight hundred miles an hour?
- 8—What is chlorophyll, and how is it used by plants?
- 9—How do single-celled organisms multiply?

(A Guide to the Answers Will Be Found on Page 121)